

NOTES:

1. QUANTITIES IN B.O.M. ARE FOR ONE (1) UNIT.
2. ALL PIPING TO BE IN ACCORDANCE WITH THE LATES EDITION OF ASME B31.3 PRESSURE PIPING CODE.
3. WELDED PIPING TO BE: SA-106B SMLS;

• SPEC CS – 1" THRU 2": SCH. 160

– 3" & UP: SCH. 80

• SPEC AS – 1" THRU 4": SCH. XS
4. THREADED PIPING TO BE: SA-106B SMLS;

• SPEC CS – ½" THRU 1½": SCH. XXS

• SPEC A – ½" THRU 2": SCH. XS

• SPEC AS – ½": SCH. XXS

– ¾" THRU 1½": SCH. 160
5. WELDED FITTINGS TO BE: SA-234-WPB c/w SA-105N FLANGES.
6. FORGED STEEL FITTINGS TO BE: SA-105N, CL3000 (min.) RATING.
7. TUBING DETAILS;

• INSTRUMENT: ⅜"(0.035"WT) 316SS TUBING

• PROCESS: ½"(0.049"WT) 316SS TUBING

• c/w SWAGelok 316SS FITTINGS & FERRULES.
8. REMOVE ALL FLOATS/DISPLACERS FROM ALL LEVEL CONTROLLERS/SWITCHES; TAG & CRATE FOR SHIPMENT.
9. PROTECT ALL OPENINGS FOR SHIPMENT.
10. VENT ALL INSTRUMENTS OFF SKID (o/s).
11. PIPING & INSTRUMENTS SECURELY SUPPORTED.
12. ELECTRICAL SUPPLIES & EQUIPMENT INSTALLED BY OTHERS.
13. 100% X-RAY OF ALL WELDED PIPING.
14. PWHT ON WELDED PIPING.

| PIPE SPECS |             |
|------------|-------------|
| AS         | 150CL SOUR  |
| BS         | 300CL SOUR  |
| CS         | 600CL SOUR  |
| DS         | 1500CL SOUR |
| ES         | 2500CL SOUR |

SHIP LOOSE ITEMS

- 2 – TUBES OF CAULKING
- 1 – METER RUN HANDLE
- 1 – PARTS MANUAL
- 3 – LEVEL CONTROLLER FLOATS & EXTENSION ARMS
- 1 – 500GAL DUAL WALL TANK & STAND
- 1 – LG-502
- 2 – ½"BAF4N1
- 1 – ½"Y4N1
- 1 – 2"BA4N1 (FLOOR DRAIN)

END CONNECTION:  
FLANGED RF= 1  
FLANGED RTJ=2  
BUTTWELDED= 3  
THREADED F-F= 4  
THREADED M-F= 5  
SOCKETWELD= 6  
SW/THRD= 7  
TUBING= 8

VALVE LEGEND

VALVE SERVICE:  
NORMAL TEMP, SWEET PROCESS=1  
NORMAL TEMP, SOUR PROCESS=1S  
LOW TEMP, SWEET PROCESS=2  
LOW TEMP, SOUR PROCESS=2S

VALVE SIZE  
VALVE TYPE:  
BALL (R.P.)=BA  
BALL (F.P.)=BAF  
NEEDLE=NE  
FULL BODY CHECK=C  
GATE=GA  
GLOBE=GL  
PISTON CHECK=CP  
Y-STRAINER=Y

ANSI CLASS:  
CL150=A  
CL300=B  
CL400=C  
CL600=D  
CL900=E  
CL1500=F  
CL2500=G

THREADED/SOCKET WELDED CLASS:  
API 602  
CLASS 800=H  
CLASS 1500=J  
CLASS 2500=K  
WOG  
250 WOG=L  
1000 WOG=M  
2000 WOG=N  
2160 WOG=O  
3000 WOG=P  
3600 WOG=Q  
6000 WOG=R  
10000 WOG=S  
TUBING RATING=T

VALVE LIST

| TAG        | QTY. | MAKE     | DESCRIPTION                                    |
|------------|------|----------|--|
| ¼"BA4N1    | 2    | JAG      | ¼"-NPT 2000CL RP BALL VALVE                    |
| ½"BAF4N1   | 5    | JAG      | ½"-NPT 2000CL FP BALL VALVE                    |
| ½"BAF4N1S  | 8    | JAG      | ½"-NPT 2000CL FP BALL VALVE, NACE              |
| ½"BAF4N1S  | 2    | MAS      | ½"-NPT 2000CL FP BALL VALVE, NACE (METER TAPS) |
| 3/4"BA4N1S | 4    | JAG      | 3/4"-NPT 2000CL RP BALL VALVE, NACE            |
| 1"BA4N1S   | 7    | JAG      | 1"-NPT 2000CL RP BALL VALVE                    |
| 2"BA4N1    | 1    | FUSION   | 2"-NPT 2000CL RP BALL VALVE                    |
| 2"BA1D1S   | 14   | FUSION   | 2"-600CL RF RP BALL VALVE, NACE                |
| ½"C401S    | 3    | WHEATLEY | ½"-NPT 2160 WOG SWING CHECK VALVE, NACE        |
| 1"C401S    | 2    | WHEATLEY | 1"-NPT 2160 WOG SWING CHECK VALVE, NACE        |
| 2"GL1D1S   | 1    | NEWAY    | 2"-600CL RF GLOBE VALVE, NACE                  |
| ¼"NE4R1S   | 1    | WGI      | ¼"-NPT F-F 6000CL NEEDLE VALVE, SS             |
| ¼"NE5R1S   | 6    | WGI      | ¼"-NPT M-F 6000CL NEEDLE VALVE, SS             |
| ½"NE4R1    | 1    | WGI      | ½"-NPT F-F 6000CL NEEDLE VALVE, CS             |
| ½"NE5R1S   | 2    | WGI      | ½"-NPT M-F 6000CL NEEDLE VALVE, SS             |
| 2"Y1D1S    | 2    | ALTA     | 2"-600CL RF, NYF600 ALTA WYE STRAINER, NACE    |
| ½"Y4N1     | 1    | ALTA     | ½"-NPT, YS800 ALTA WYE STRAINER                |

BILL OF MATERIALS


| TAG                        | QTY. | MAKE                   | DESCRIPTION  |
|----------------------------|------|------------------------|--|
| FE-101                     | 1    | DANIELS RECONDITIONED  | DUAL CHAMBER METER RUN, 6"-600CL, RF SCH. 80 AGA FIG. 2000 SPEC c/w FLANGED CPA 50E FLOW CONDITIONER. NACE SERVICE TRIM 100% X-RAY, PWHT, RH MOUNT, 118" F/F. ONE(1) 1" 3000CL TOL, ONE(1) 3/4" 3000CL TOL |
| FM-101/102<br>FQIT-101/102 | 2    | NUFLO                  | TURBINE METER, 2"-600CL EZE IN, 40-400 GPM CAPACITY c/w MAGNETIC PICK-UP & MCIII TOTALIZER   |
| HLSD-101<br>LLSD-101       | 2    | KIMRAY                 | HIGH LEVEL SHUTDOWN, 2"-NPT, ELECTRIC MODEL: CEC2S6<br>NACE SERVICE c/w MANUAL OVERRIDE  |
| LC-101/102                 | 2    | NORRISEAL              | 1001A LEVEL CONTROLLER, 2"-NPT, MODEL: 1001A2SM60NSLDV<br>NACE, SNAP, DIRECT ACTING, LH MOUNT, SPLIT FLOAT   |
| LCV-101/102                | 2    | NORRISEAL              | 2220 LEVEL CONTROL VALVE, 2"-600CL, FC NACE SERVICE, MODEL: 2220-RF14TGV-9AA, 1" TRIM  |
| LG-101                     | 1    | PENBERTHY              | 1TM5 LEVEL GAUGE c/w 330J GAUGE VALVES, NACE   |
| LG-102                     | 1    | PENBERTHY              | 1RM5 LEVEL GAUGE c/w 330J GAUGE VALVES, NACE   |
| MVT-101                    | 1    | FISHER                 | MVS 205E MULTIVARIABLE TRANSMITTER<br>0-250" W.C., 0-3600 PSIG, c/w RTD ASBL.<br>THERMOWELL 1½" LG 316SST, 5 VALVE MANIFOLD  |
| PCV-101                    | 1    | FISHER                 | ET PRESSURE CONTROL VALVE, 6"-600CL, RF SOUR SERVICE 0-33 PSIG OP. PRESS., 667-70 ACT., FC   |
| PI-101                     | 1    | WGI OR EQUAL           | PRESSURE GAUGE, LIQUID FILLED, SS<br>4" FACE x ½"-NPT, 0-1500 PSIG   |
| PSHH-101                   | 1    | CUSTOM CONTROL SENSORS | ELECTRIC PRESSURE SWITCH, MODEL: 6900GZE22<br>RANGE: 700-2200 PSIG RISING, 520-2100 PSIG DECREASING SET@ TBD   |
| PSV-101                    | 1    | MERCER                 | PRESSURE SAFETY VALVE, MODEL: 9100<br>2"-600CL x 3"-150CL, WCB BODY<br>SET@ 1440 PSIG, "G" ORIFICE, SOUR SERVICE   |
| PT-101                     | 1    | ROSEMOUNT              | 2088 PRESSURE TRANSMITTER, 0-4000 PSIG<br>MODEL: 2088G4S22A1B4C6M5<br>c/w 0306BT22AA11SG PRESSURE MANIFOLD   |
| PY-101                     | 1    | FISHER                 | I2P-100 ELECTO-PNEUMATIC TRANSDUCER  |
| TI-101<br>TW-101           | 1    | TREND OR EQUAL         | TEMPERATURE INDICATOR<br>3" FACE x ½" x 6" STEM, -40/160°F<br>c/w ½"-FNPT x 3/4"-MNPT x 6" 316 SST THERMOWELL  |
| PI-201/202                 | 2    | WGI OR EQUAL           | PRESSURE GAUGE, LIQUID FILLED, SS<br>2½" FACE x ¼"-NPT, 0-200 PSIG   |
| PSV-201                    | 1    | MERCER                 | PRESSURE SAFETY VALVE, MODEL: 9100, SOUR SERVICE<br>1"-NPT, WCB BODY, SET@150 PSIG, "D" ORIFICE  |
| PRV-201                    | 1    | FISHER                 | PRESSURE REGULATOR, 627, 2000 PSIG MAWP, SOUR SERVICE<br>1"-NPT, 70-150 PSIG RANGE, 1/8" ORIFICE, NYLON DISC   |
| PRV-202-205                | 4    | FISHER                 | PRESSURE REGULATOR 67CFR-362SC<br>¼"-NPT, 0-35 PSIG RANGE, SOUR SERVICE  |
| LG-501                     | 1    | LOUVRES & GAUGES       | 48" LEVEL, RATE GAUGE<br>½"-NPT  |
| LG-502                     | 1    | LOUVRES & GAUGES       | 5½" LEAK DETECTION GAUGE<br>½"-NPT, 3" VIEWING WINDOW  |
| PRV-511/521                | 2    | NUPRO                  | PRESSURE RELIEF VALVE MODEL: SS-4R3A5-BU<br>(1)-C SPRING SET@ 1440 PSIG, (1)-D SPRING SET@ 2219 PSIG   |

SKID & BUILDING DESCRIPTION


| TAG               | QTY. | DESCRIPTION   |
|-------------------|------|---|
| BUILDING          |      | 12'-0" WIDE x 20'-0" LONG, SELF FRAMER                            |
| ROOF              |      | SHED STYLE, 11'-6" LOW EAVE, 12'-3" HIGH EAVE                     |
| INSULATION        |      | R12 IN ROOF & WALLS c/w 4 MIL VAPOR BARRIER                       |
| EXTERIOR          |      | 22 GA WHITE   |
| INTERIOR          |      | 24 GA WHITE FLUTED ALUMINUM                                       |
| DOOR              | 2    | 3' x 7" 20 GA STEEL c/w IGW WINDOW                                |
| HARDWARE          |      | CHECK CHAIN, PANIC BAR & LOCK, & WEATHER STRIPPING                |
| WINDOW            | 1    | 36" x 38" DOUBLE GLAZED SLIDING w/ SCREEN                         |
| VENTS             | 3    | 12" x 12" ADJUSTABLE LOUVRES & SCREENS                            |
| OPTIONS           |      | NONE  |
| HEATERS           | 2    | SEE PID   |
| EXHAUST FAN       |      | NONE  |
| SKID              |      | 12'-0" WIDE x 20'-0" LONG   |
| FLOOR             |      | 3/16" CHECKERPLATE, 2" CONTAINMENT, & 24" x 12" DRAIN             |
| INSULATION        |      | 2" MIN THK. POLYURETHANE INSULATION                               |
| SKID PREP & PAINT |      | SSPC-SP6, 1 COAT CLOVERDALE PRIMER, 1 COAT CLOVERDALE GREY ENAMEL |
| PIPE EXTERIOR     |      | SSPC-SP6, 1 COAT CLOVERDALE PRIMER, 1 COAT CLOVERDALE GREY ENAMEL |
| PIPE INTERNAL     |      | NONE  |
| VESSEL EXTERIOR   |      | SSPC-SP6, 1 COAT CLOVERDALE PRIMER, 1 COAT CLOVERDALE GREY ENAMEL |
| VESSEL INTERNAL   |      | NONE  |

TAPPED & BLIND FLANGES

| QTY. | DESCRIPTION                                      |
|------|--|
| 1    | 2"-600 CL RF HUB FLANGE TAPPED ½"-NPT, SA-105N   |
| 1    | 2"-600 CL RF HUB FLANGE TAPPED 3/4"-NPT, SA-105N |



CAPE MANUFACTURING LTD.  
PO BOX# 216 HALKIRK, AB T0C 1M0  
TELEPHONE: (403) 884-2442



CLIENT:  
c/o:

LSD:  
DATE: 15-01-14  
JOB NO.: CML-150400  
SCALE: N.T.S.  
DRAWN BY: KG  
CHECKED BY: KC

48" HORIZONTAL SEPARATOR  
48" SEPARATOR, 16'-0" s/s  
DRESSED 3 PHASE, 1440 PSIG

DWG NO.:  
CML-150400 BOM

REV.  
1

|     |          |                         |    |     |
|-----|----------|-------------------------|----|-----|
| 1   | 15-08-05 | AS BUILT                | KG |     |
| 0   | 15-02-23 | ISSUED FOR CONSTRUCTION | KG | KC  |
| NO. | DATE     | REVISION                | BY | APP |

SHEET 2 OF 2